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Application No. 09/989,289
Amendment dated December 26, 2006

Docket No.: 4799-0223PUS1

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 35, 42-53, 57-60, 68-70, 75-79, 94-96, 98, 100-105, 113-115 and 128-138 are now pending in the present application. Claims 35 and 57 are independent. Claims 61, 71-74, 83-87, 97, 99, 109-112 and 116-127 have been canceled by this Amendment. Claims 47-48, 68-70, 75, 77, 79, 94-96, 98, 100-101, 103, 105, 114 and 115 have been amended. Dependent Claims 128-138 have been added.

Reconsideration of this application, as amended, is respectfully requested.

Observations

In an effort to simplify the prosecution and expedite allowance of the present application and/or reduce the issues for appeal, Applicants have presented a single independent apparatus claim and a single independent method claim. The remaining pending claims are dependent claims. Several of the dependent claims have features which are independently argued below and hence should be considered independently patentable, and not grouped with the independent claims, for later purposes of Appeal. The patentability of the dependent claims should not rise or fall with the independent claims, as further argued below.

Rejection under 35 USC 103 (Sherlock-Pelzer-Bergeman)

Claims 35, 45, 49, 61, 70, 71, 87, 96, 97, 113, 114, 115, 119, 123 and 127 stand rejected under 35 USC 103(a) as being unpatentable over Sherlock in view of Pelzer and further in view of Bergeman. This rejection is respectfully traversed.

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Claim 35

On page 2, next to the last line through page 3, line 2 of the Office Action mailed August 25, 2006, the Examiner states that Sherlock shows "a channel (figure 3 between reference #'s 18) ... a continuous wire 20 coincident with the channel (figure 3 between reference #'s 18) ... having sufficient strength to tear through the conduit." Applicants must disagree.

Sherlock indeed shows a wire 20 between the ridges 18. However, Sherlock states "the ridges are then bent over and sealed for example by heat sealing, whereby the wire will be retained" (col. 2, lines 44-45). In the Sherlock system, at best, the wire would have sufficient strength to be torn through the bent and sealed ridges 18. As can be seen in Figure 3, the ridges 18 are formed of a same material as the conduit 10, but are separate from the conduit 10 and much thinner and hence inherently less strong, as compared to the wall of the conduit 10. There would be no reason to speculate that the wire 20 would ever be pulled through the wall forming the conduit 10, as the conduit 10 lies beneath the wire 20 and one would need to grasp the wire from within the conduit 10 in order to pull the wire 20 through a portion of the wall of the conduit 10 into the inside of the conduit 10, which would serve no purpose and hence be a completely unobvious thing to do.

As the wall of the conduit 10 is thicker than the ridges 18, it is respectfully asserted that the wire would, at best, only be sufficiently strong enough to penetrate the ridges 18. Any further strengthening of the wire 20 would be counterintuitive, as the added expense and weight of a stronger wire would be a non-obvious modification.

Moreover, in the discussion by Sherlock of pulling the wire 20 away from the conduit 10 for connection to another wire 20 of another conduit 10 (col. 3, lines 8-19), Sherlock notes that it is the spiral pattern of the wire 20 along the outer surface of the conduit 10, which provides the needed slack to connect the two wires 20. The spiral patterns occur in Figures 2, 4 and 5, where

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the wire 20 or metal strip is attached to the outer surface of the conduit 10 by an adhesive or melting of a plastic coating surrounding the wire or metal strip to the outer surface of the conduit 10. In the embodiments of Figures 3 and 6 (noting that the Examiner is relying on the embodiment of Figure 3 in the rejection), the path of the wire or strip is formed by extrusion (which is a linear process). Therefore, there would be no spiral pattern and no slack in the wire or metal strip of Sherlock in the embodiments of Figures 3 and 6.

Therefore, it would be mere speculation that the wire 20 illustrated in Figure 3, as relied upon by the Examiner, would ever even be torn through the ribs 18. If it were, there would be no slack in the wire 20 to permit connection to another wire 20 of an adjacent conduit 10. Even if the wire were to be removed from the ribs 18 in the embodiment of Figure 3, a person could use a knife to cut the wire free because of the ribs. In other words, in a patent examination sense, it cannot be said that pulling the wire through the ribs would be inherent in Sherlock with regard to the embodiment of Sherlock's Figure 3, since Sherlock is silent as to whether or not the wire in the Figure 3 embodiment is ever removed and there are several alternative methods to remove the wire if it were desired to do so (e.g. cutting the ribs, melting the ribs).

Claim 45

Regarding claim 45, on page 3, line 2 of the Office Action mailed August 25, 2006, the Examiner states that Sherlock shows "said wire 20 with a coating 24." Applicants must disagree.

The Examiner is combining alternative embodiments of the Sherlock to create a hybrid structure, which is not shown or suggested by Sherlock. The Examiner started reading the limitations of claims 35 and 45 on Figure 3 of Sherlock, but has now shifted to Figure 4. Figure 4 is an alternative embodiment (e.g. another species) of Sherlock. In other words, the wire 20 in Figure 3 has no coating 24. The wire 20 in Figure 4 does have a coating 24, but the ridges 18 relied upon by the Examiner to meet the prior limitations of claim 35 are not in used in the

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alternate embodiment of Figure 4. It is improper to pick and chose features from alternative embodiments, without making out a *prima facie* case of obviousness to do so.

Moreover, on page 3, lines 2-3, the Examiner goes on to state that the coating 24 is formed of a "composition that prevents the wire from adhering to the polymer melt used to form the polymeric tube 10." Applicants must strongly disagree.

Sherlock states in column 2, lines 46-49, "The arrangement of Figure 4 provides for the use of a wire 22 which is coated with plastic 24. This arrangement is then attached to the pipe 10 by fusing the two plastics together or by the use of a suitable adhesive." Therefore, it is clear that the intent of the coating 24 of Sherlock is to "fuse" or adhere to the polymeric tube 10. This is exactly opposite to the Examiner's position. In other words, Sherlock shows that the coating 24 should enable the sticking of the wire to the tube 10, which is a direct "teaching away" from the claimed coating which prevents the wire from adhering to the polymer melt used to form the tube.

The secondary references of Pelzer and Bergeman fail to cure the shortcomings of Sherlock, as discussed above. Moreover, the Examiner has not cited the secondary references of Pelzer and Bergeman as teaching such features.

For the reasons set forth above, reconsideration and withdrawal of this rejection are respectfully requested.

Rejection under 35 USC 103 (Sherlock-Pelzer-Bergeman-Craton)

Claims 42-44, 116, 117, 120, 121, 124 and 125 stand rejected under 35 USC 103(a) as being unpatentable over Sherlock in view of Pelzer and further in view of Bergeman and further in view of Craton. This rejection is respectfully traversed.

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Craton fails to cure the deficiencies of the references of Sherlock, Pelzer and Bergeman. Therefore, these claims should be considered allowable for the reasons advanced above.

Claim 43

Moreover, regarding claim 43, the Examiner admits that Sherlock, Pelzer and Bergeman lack the copper-clad steel wire, and goes on to state on page 12, lines 8-11, that Craton teaches a copper-clad steel wire and it would have been obvious to have modified Sherlock by providing a copper-clad steel wire "in view of the teachings of Craton."

The rejection fails to state a *prima facie* case of obviousness as required by the MPEP. The rejection fails to state what the teachings are, i.e. what is the motivation from the prior art or logic to make the modification suggested by the Examiner? Applicants admit that copper-clad steel wires have been known in other arts for many years. However, Applicants are unaware of any motivation to employ such wires in combination with a toneable conduit, and the Examiner's rejection has only pointed out the existence of copper-clad wires, but failed to provide any reason as to why one would be used in conjunction with a toneable conduit.

Applicants discovered that a copper-clad steel wire had a very high strength to size ratio which allowed a small diameter wire to be pulled through the wall of a conduit. This added strength would be a motivation to use a copper-clad steel wire in combination with a toneable conduit. However, this motivation comes from the Applicants' own disclosure and the Applicants' own disclosure cannot be properly used in a 35 USC 103(a) rejection.

For the reasons set forth above, reconsideration and withdrawal of this rejection are respectfully requested.

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Rejection under 35 USC 103 (Sherlock-Pelzer-Bergeman-Tzeng et al.)

Claims 46-48 and 98-101 stand rejected under 35 USC 103(a) as being unpatentable over Sherlock in view of Pelzer and further in view of Bergeman and further in view of Tzeng et al. This rejection is respectfully traversed.

Tzeng et al. fail to cure the deficiencies of the references of Sherlock, Pelzer and Bergeman. Therefore, these claims should be considered allowable for the reasons advanced above.

Regarding claims 46-48, Tzeng et al. concerns a heat-shrinkable jacket for EMI Shielding (See the title). Tzeng et al. would not suggest to a person having ordinary skill in the art the coating of a wire in a conduit wall with a polymeric material, a polymeric material having a melting temperature of at least about 500°F, or a coating formed of polytetrafluoroethylene. There is no motivation to combine the teachings of Tzeng et al. with the hybrid structure of Sherlock, Pelzer and Bergeman. Heat shrinkable jackets are simply too far removed and are non-analogous to the present invention. For example, polytetrafluoroethylene is also known as a cookware coating, but there is no motivation to take that coating and apply it to a wire in toneable conduit wall.

For the reasons set forth above, reconsideration and withdrawal of this rejection are respectfully requested.

Rejection under 35 USC 103 (Sherlock-Pelzer-Bergeman-Levingston et al.)

Claim 50 stands rejected under 35 USC 103(a) as being unpatentable over Sherlock in view of Pelzer and further in view of Bergeman and further in view of Levingston et al. This rejection is respectfully traversed.

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Levingston et al. fail to cure the deficiencies of the references of Sherlock, Pelzer and Bergeman. Therefore, this claim should be considered allowable for the reasons advanced above.

Rejection under 35 USC 103 (Sherlock-Pelzer-Bergeman-Karl)

Claim 51 stands rejected under 35 USC 103(a) as being unpatentable over Sherlock in view of Pelzer and further in view of Bergeman and further in view of Karl. This rejection is respectfully traversed.

Karl fails to cure the deficiencies of the references of Sherlock, Pelzer and Bergeman. Therefore, this claim should be considered allowable for the reasons advanced above.

Rejection under 35 USC 103 (Sherlock-Pelzer-Bergeman-Karl-Bird)

Claim 52 stands rejected under 35 USC 103(a) as being unpatentable over Sherlock in view of Pelzer and further in view of Bergeman and further in view of Karl and further in view of Bird. This rejection is respectfully traversed.

Bird fails to cure the deficiencies of the references of Sherlock, Pelzer, Bergeman and Karl. Therefore, this claim should be considered allowable for the reasons advanced above.

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Rejection under 35 USC 103 (Sherlock-Pelzer-Bergeman-Nakamura et al.)

Claim 53 stands rejected under 35 USC 103(a) as being unpatentable over Sherlock in view of Pelzer and further in view of Bergeman and further in view of Nakamura et al. This rejection is respectfully traversed.

Nakamura et al. fail to cure the deficiencies of the references of Sherlock, Pelzer and Bergeman. Therefore, this claim should be considered allowable for the reasons advanced above.

Rejection under 35 USC 103 (Wood et al.-Sherlock-Bergeman-Pelzer)

Claims 57 and 83 stand rejected under 35 USC 103(a) as being unpatentable over Wood et al. in view of Sherlock and further in view of Bergeman and even further in view of Pelzer. This rejection is respectfully traversed.

The Examiner admits that Wood et al. lacks a channel extending within a wall of the conduit and hence tearing the wire from the channel through the wall of the conduit. For the reasons noted above with regard to claim 35, Sherman, Bergeman and Pelzer fail to cure this deficiency. As such the combination of Wood et al., Sherman, Bergeman and Pelzer fails to meet the limitations of independent claim 57. Claim 83 has been canceled.

For the reasons set forth above, reconsideration and withdrawal of this rejection are respectfully requested.

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Remaining Rejections under 35 USC 103**Wood et al.-Sherlock-Bergeman-Pelzer-Additional Reference(s), and****Sherlock-Pelzer-Bergeman-Additional Reference(s)**

The remaining rejections of record rely on either (1) Wood et al. in view of Sherlock and further in view of Bergeman and further in view of Pelzer and further in view of an additional reference(s); or (2) Sherlock in view of Bergeman and further in view of Pelzer and further in view of an additional reference(s). These rejections are all respectfully traversed as the additional reference(s) fail to cure the deficiencies of the base combinations, for the reasons presented in the headings above. Accordingly, reconsideration and withdrawal of these rejections are respectfully requested.

Conclusion

In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 621-7140 in the Washington, D.C. area.

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

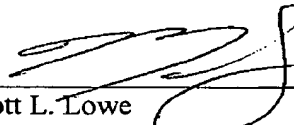
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3828 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: December 26, 2006

Respectfully submitted,

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